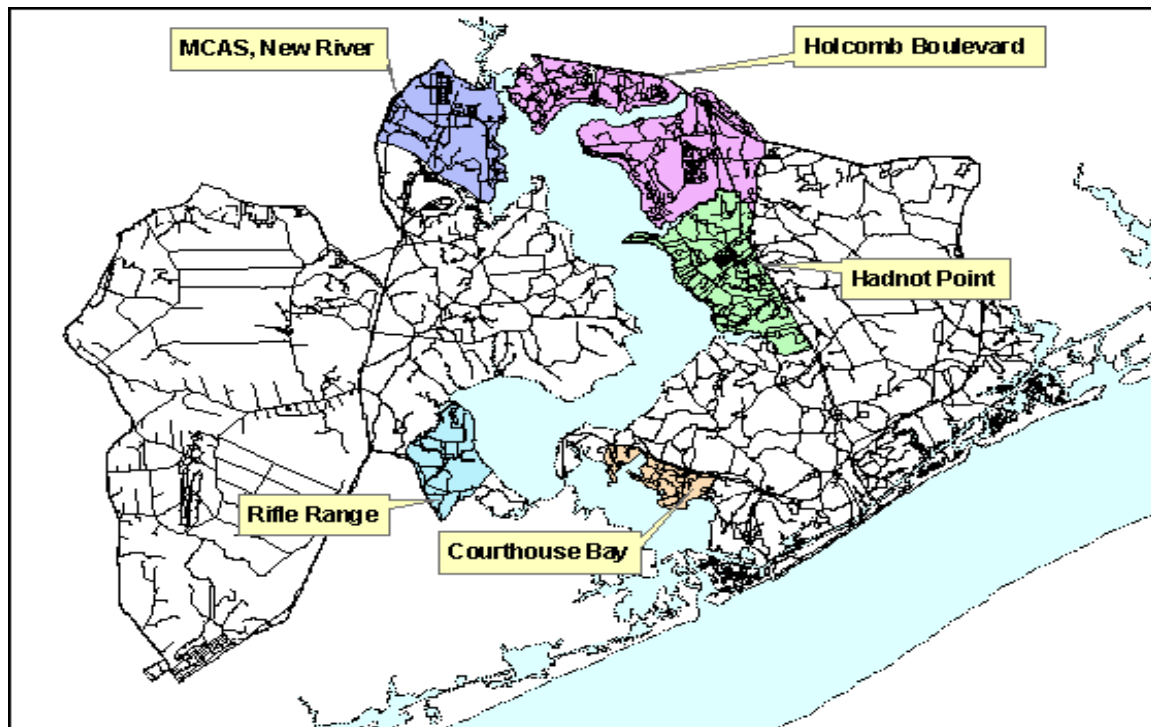


## 2003 Water Quality Report for Courthouse Bay Water Treatment System (PWS ID: 04-67-047)



### For more information

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# 2003 Water Quality Report for Courthouse Bay Water Treatment System

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## **Is my water safe?**

MCB, Camp Lejeune is committed to providing you with drinking water that is safe and reliable. We believe that providing you with accurate information about your water is the best way to assure you that your water is safe. This 2003 Water Quality Report for the Courthouse Bay Water Treatment System explains where your water comes from and lists all of the contaminants detected in your drinking water. We routinely test your water for over 80 different EPA regulated chemical and microbiological contaminants. In January of 2003, Carbon Tetrachloride was detected at the Courthouse Bay water treatment plant, however, follow up samples tested negative. In 2003, the Courthouse Bay water system met all U.S. Environmental Protection Agency (EPA) and State drinking water health standards.

## **Do I need to take special precautions?**

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Water Drinking Hotline (800-426-4791).

## **Where does my water come from?**

The Courthouse Bay community water system obtains water from seven (7) groundwater wells. Groundwater is pumped from the Castle Hayne aquifer approximately 180 feet below the ground. This water is relatively free of contaminants. It is pumped from the wells to a detention basin located at the Courthouse Bay Water Treatment Plant. At the detention basin air is bubbled through the water, calcium carbonate is added (to raise the pH of the water), and chlorine is added to the water to protect against microbial contamination. This water is then pumped to a series of pressure filters to remove particles. After filtration, the water is passed through a set of softening units to remove minerals and then is stored in a large reservoir called a clearwell. When you open a faucet or turn on a water hose, treated drinking water from the clearwell is pumped through the distribution system to your taps.

## **How do contaminants get into drinking water?**

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's (EPA) Safe Drinking Water Hotline (800-426-4791).

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally-occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity. Microbial contaminants, such as viruses and bacteria, may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife. Inorganic contaminants, such as salts and metals, which can be naturally-occurring or result from urban stormwater runoff, industrial, or domestic wastewater discharges, oil and gas production, mining, or farming and pesticides and herbicides that may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses. Organic Chemical Contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can, also come from gas stations, urban stormwater runoff, and septic systems. Radioactive contaminants can be naturally occurring or be the result of oil and gas production and mining activities. In order to ensure that tap water is safe to drink, EPA prescribes regulations that limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water that must provide the same protection for public health.

## Educational Statement for Lead

Infants and young children are typically more vulnerable to lead in drinking water than the general population. It is possible that lead levels at your home may be higher than at other homes in the community as a result of materials used in your home's plumbing. If you are concerned about elevated lead levels in your home's water, you may wish to flush your tap for at least 60 seconds before using tap water. You may also wish to have your home's water tested. Additional information is available from Safe Drinking Water Hotline (800-426-4791).

## Water Quality Data Table

The table below lists all of the drinking water contaminants that we detected during the calendar year of this report. The presence of contaminants in the water does not necessarily indicate that the water poses a health risk. Unless otherwise noted, the data presented in this table is from testing done in the calendar year of the report. The EPA or the State requires us to monitor for certain contaminants less than once per year because the concentrations of these contaminants do not change frequently.

Contaminants (units)	MCLG	MCL	Your Water	Range Low	Range High	Sample Date	Violation	Typical Source
Volatile Organic Contaminants								
TTHMs [Total Trihalomethanes] (ppb)	NA	100	82.9	36.9	157.4	----	No	By-product of drinking water disinfection
Carbon Tetrachloride (ppb)	0	5	0.5	----	----	1/2003	No	Discharge from chemical plants and other industrial activities
Contaminant(s) (units)	MCLG	AL	Your Water	# of Samples >AL		Sample Date	Exceeds AL	Typical Source
Inorganic Contaminants								
Copper (ppm)	1.3	1.3	0.635	0		2002 Data	No	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives
Lead (ppb)	0	15	5	1		2002 Data	No	Corrosion of household plumbing systems; Erosion of natural deposits

### **Units Description:**

NA: Not applicable

ND: Not detected

NR: Not reported

MNR: Monitoring not required, but recommended.

ppm: parts per million, or milligrams per liter (mg/L)

ppb: parts per billion, or micrograms per liter (µg/L)

## Potential Health Effects:

**Carbon Tetrachloride** – Some people who drink water containing carbon tetrachloride in excess of the MCL over many years could experience problems with their liver and may have an increased risk of getting cancer.

**Lead** – Infants and children who drink water containing lead in excess of the action level could experience delays in their physical or mental development. Children could show slight deficits in attention span and learning abilities. Adults who drink this water over many years could develop kidney problems or high blood pressure.

**TTHM** – Some people who drink water containing trihalomethanes in excess of the MCL over many years may experience problems with their liver, kidneys, or central nervous systems, and may have an increased risk of getting cancer.

## Important Drinking Water Definitions:

**AL:** Action Level: The concentration of a contaminant, which, if exceeded, triggers treatment or other requirements, which a water system must follow.

**Contaminant:** Any natural or man-made physical, chemical, biological, or radiological substance or matter in water, which is at a level that may have an adverse effect on public health, and which is known or anticipated to occur in public water systems.

**Coliform:** A group of bacteria commonly found in the environment. They are an indicator of potential contamination of water. Adequate and appropriate disinfection effectively destroys coliform bacteria.

**Disinfection:** A process that effectively destroys coliform bacteria.

**MCL:** Maximum Contaminant Level: The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

**MCLG:** Maximum Contaminant Level Goal: The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

**MRDLG:** Maximum residual disinfection level goal. The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

**MRDL:** Maximum residual disinfectant level. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

**Nitrates:** A dissolved form of nitrogen found in fertilizers and sewage by-products that may leach into groundwater and other water sources. Nitrates may also occur naturally in some waters.

**NTU:** (Nephelometric turbidity unit) A measure of the clarity of water.

**Pathogens:** (Disease-causing pathogens, waterborne pathogens) A pathogen is a bacterium, virus, or parasite that causes or is capable of causing disease. Pathogens may contaminate water and cause waterborne disease.

**pCi/L:** (picocuries per liter) A measurement of radiation released by a set amount of a certain compound.

**pH:** A measure of the acidity or alkalinity of water.

**ppb, ppm:** (Part per billion, part per million) Measurements of the amount of contaminant per unit of water. A part per million is like one cent in \$10,000 and a part per billion is like one cent in \$10,000,000.

**THM:** (Trihalomethanes) Four separate compounds (chloroform, dichlorobromomethane, dibromochloromethane, and bromoform) that form as a result of disinfection.